

Claims 1-11 remain in the application.

On page 2 of the above-identified Office action, claims 1-3 and 7-9 have been rejected as being anticipated by *Ting et al.* (US 5,969,422) under 35 U.S.C. § 102.

On page 3 of the Office action, claims 4-6 and 10-11 have been rejected as being obvious over *Ting et al.* under 35 U.S.C. § 103.

The rejections and the Examiner's comments have been considered. However, as will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome *Ting et al.*.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 (similarly claim 7) calls for, inter alia:

An integrated circuit configuration, comprising:

an insulating layer;

a first conductive structure embedded in said insulating layer;

a diffusion barrier layer and a **second insulating layer** disposed above said first conductive structure and **being formed with a contact** hole reaching as far as said first conductive structure and having side walls;

a second conductive structure disposed in said contact hole and conductively connected to said first conductive structure; and

spacers formed on said **side** walls of **said contact hole above said diffusion barrier layer**, said spacers acting as a barrier to diffusion of a material from said first conductive structure into said second insulating layer and reaching as far as a surface of said diffusion barrier layer.

In the last paragraph on page 2 of the Office action, the Examiner stated that:

Ting et al. (figures 1 to 5) specifically figure 2 show a integrated circuit configuration, comprising: an insulating layer 11; a first conductive structure 15 embedded in said insulating layer; a diffusion barrier layer 12 and a **second insulating layer 21** disposed above said first conductive structure and **being formed with a contact hole** reaching as far as said first conductive structure and having side walls; a second conductive structure 23 disposed in said contact hole and conductively connected to said first conductive structure; and **spacers 14 formed** on **said** side walls of **said** contact hole **above said diffusion barrier layer**, said spacers acting as a barrier to diffusion of a material from said first conductive structure into said second insulating layer and reaching as far as a surface of said diffusion barrier layer.

(Emphasis added.)

Fig. 2 of *Ting et al.* is reproduced below:

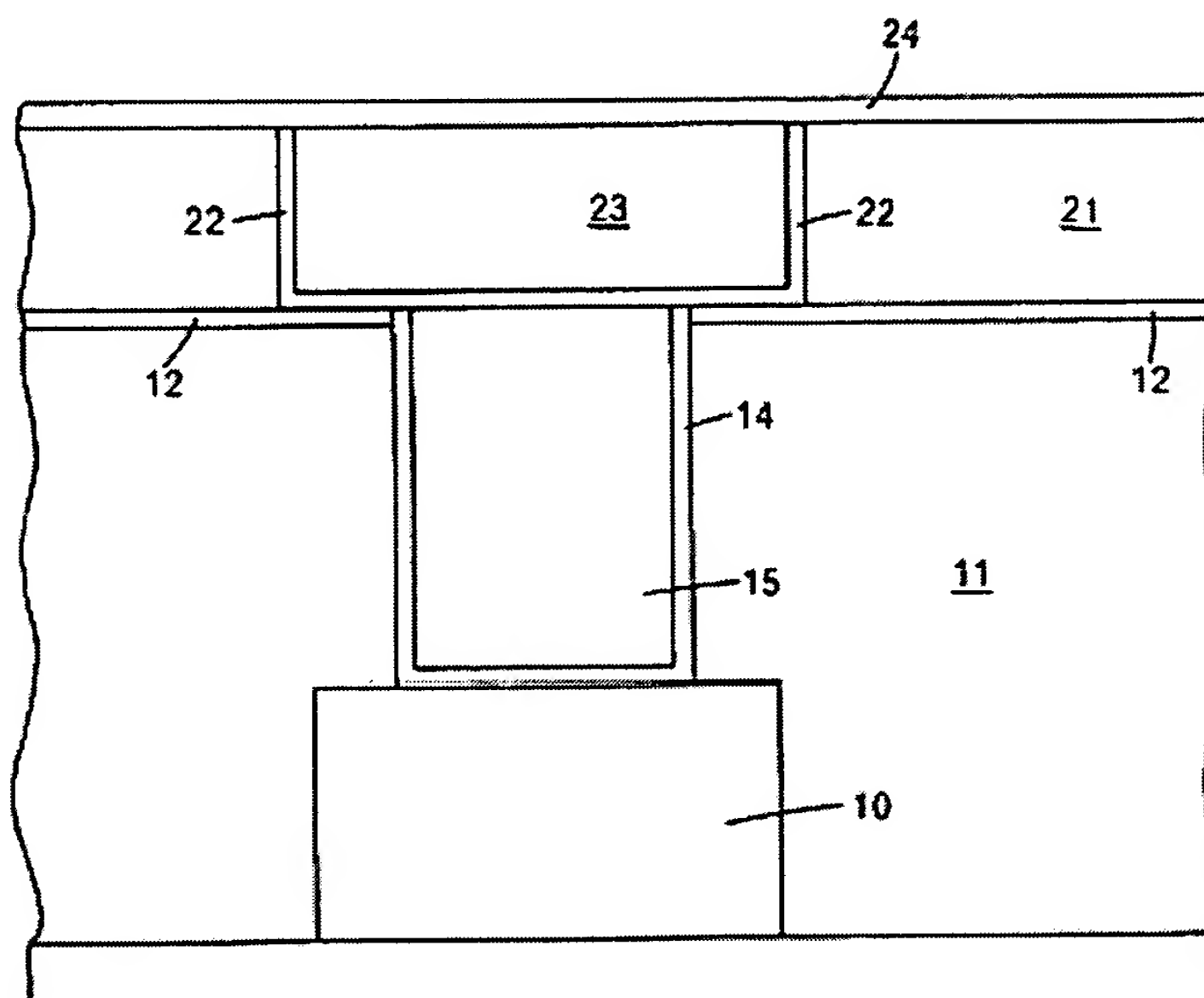


FIG. 2

Clearly, *Ting et al.* do not show spacers (14) formed on side walls of a contact hole formed in the **second insulation layer** (21), which is disposed above a first conductive structure (15). Furthermore, the spacers in the present invention are formed **above** the diffusion barrier layer, and not below as shown in Fig. 2 of *Ting et al.*. In *Ting et al.* the spacers (14) (in combination with the diffusion barrier layer (12)) do **not** prevent material from diffusing from the first conductive structure (15) into a second insulating layer (21).

The inventive concept of the invention of the instant application is to avoid diffusion of material from a first

conductive structure (embedded in a first insulating layer) into a second insulating layer by using "spacers" acting as a diffusion barrier (see the paragraph bridging pages 4-5 of the instant application). This inventive concept, or a device incorporating this inventive concept, is not suggested or disclosed in *Ting et al.*.

Therefore, the invention as recited in claims 1 and 7 of the instant application is believed not to be anticipated by *Ting et al.*.

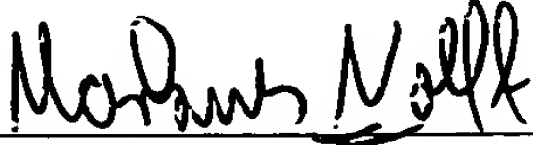
It is accordingly believed to be clear that *Ting et al.* do not show the features of claims 1 and 7. Claims 1 and 7 are, therefore, believed to be patentable over the art and because claims 2-6 are ultimately dependent on claim 1 and claims 8-11 are ultimately dependent on claim 7, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-11 are solicited.

If an extension of time is required, petition for extension is herewith made.

Please charge any fees that might be due with respect to
Sections 1.16 and 1.17 to the Deposit Account of Lerner and
Greenberg, P.A., No. 12-1099.

Respectfully submitted,



Markus Nolf
Markus Nolf (Reg. No. 37,006)

March 3, 2004

Lerner and Greenberg, P.A.
Post Office Box 2480
Hollywood, FL 33022-2480
Tel: (954) 925-1100
Fax: (954) 925-1101